**USES THEREOF** 

Inventors: Rachel Meyers et al. Application No.: Not yet assigned Docket No.: 381552004800

### Sheet 1 of 8

SEQ ID NO:1 TCGCGATCTAGAACTAGTGGCACGGCTCCTGCACTCCCACTGCCGCAGGAACTGCTCAGGAACCTGCCGGTCTCCGGCT GGGACGGTGGCTGGATCAGCTCAAGCCTCCAGGGCCCTGAGGCTGAGGGGCTGAGTGCTCATTCCAGCCGCCTCGGGGA ACCCGGGCTGGGAGACCCCATGCCTGGGGGTGAGCCTGGAGCCAGGGCAGTGCGGTGAGAGGGCTCCGGAGAGAGGGCTG GGCACCACCAGGCTTGGGTGTGTGATGCGCTGCTGGCCCAGGCTACACCCCGACAAGGGACACCGGGGGCCCTGGGAGC 10 SEQ ID NO:2 CAGTTGCTGCCCCACCGACAGTCCTCAGTCCCTCCATG ATG GCT CCC CCG ACA GCC GGC CCC CTT CCT TSEQ ID NO:3-> 30 D ₽ Ε D P G P 30 GGC CCA GCT CTT CCG CCT GAG GAC CCA GGG CCG GAT CCG GAG AGC AGG TGG CTT TTC TTG 90 C M E R 50 AGC GCC AAC ATT CTG CCC GTG GTG GAG CGG TGC ATG GGT GCC ATG CAA GAG GGG ATG CAG 150 70 ATG GTG AAG CTG CGT GGC GGC TCC AAG GGC CTG GTC CGC TTC TAC TAC CTG GAC GAG CAC 210 R S C I R W R P S R K N E K A K I S I D CGC TCC TGC ATC GGC TCA CGC AAG AAC GAG AAG GCC AAG ATC TCC ATC GAC 90 270 F R S 110 TCC ATC CAG GAG GTG AGT GAG GGG CGG CAG TCG GAG GTC TTC CAG CGC TAC CCT GAC GGC 330 130 AGC TTC GAC CCC AAC TGC TGC TTC AGC ATC TAC CAC GGC AGC CAC CGC GAG TCG CTG GAC 390 W т G 150 CTG GTC TCC ACC AGC AGC GAG GTG GCG CGC ACC TGG GTC ACT GGC CTG CGC TAC CTC ATG 450 D E D R R R 170 GCC GGC ATC AGC GAC GAG GAC AGC CTG GCT CGC CGC CAG CGC ACC AGG GAC CAG TGG CTG 510 190 D K N G D G S AAG CAG ACG TTT GAC GAG GCC GAC AAG AAC GGG GAT GGC AGC CTG AGC ATT GGC GAG GTC 570 CTG CAG CTG CTG CAC AAG CTC AAC GTG AAC CTG CCC CGG CAG AGG GTG AAG CAG ATG TTC 230 AGG GAA GCG GAC ACG GAT GAC CAC CAA GGG ACG CTG GGT TTT GAA GAG TTC TGT GCC TTC 690 250 R R D L TAC AAG ATG ATG TCC ACC CGC CGG GAC CTC TAC CTG CTC ATG CTG ACC TAC AGC AAC CAC 750 270 A S L AAG GAC CAC CTG GAT GCC GCC AGC CTG CAG CGC TTC CTG CAG GTG GAG CAG AAG ATG GCG 810 290 0 D GGT GTG ACC CTC GAG AGC TGC CAG GAC ATC ATC GAG CAG TTT GAG CCA TGC CCA GAA AAC K S K G L L G I D G- F T N Y T R S P A G AAG AGT AAG GGG CTG CTG GGC ATT GAT GGC TTC ACC AAC TAC ACC AGG AGC CCT GCT GGT 310 930 330 H H Q GAC ATC TTC AAC CCT GAG CAC CAC GAT GTG CAC CAG GAC ATG ACG CAG CCG CTG AGC CAC 990 TAC TTC ATC ACC TCG TCC CAC AAC ACC TAC CTC GTG GGT GAC CAG CTC ATG TCC CAG TCA 1050 370 CGG GTG GAC ATG TAT GCT TGG GTC CTG CAG GCT GGC TGC CGC TGC GAG GTG GAC TGC 1110 390 H Ġ Y Ħ TGG GAT GGG CCC GAC GGG GAG CCC ATT GTG CAC CAT GGC TAC ACT CTG ACT TCC AAG ATC

**USES THEREOF** 

Inventors: Rachel Meyers et al. Application No.: Not yet assigned

Docket No.: 381552004800

Sheet 2 of 8

T I N Ι K 410 CTC TTC AAA GAC GTC ATT GAA ACC ATC AAC AAA TAT GCC TTC ATC AAG AAT GAG TAC CCA 430 K С N Н GTG ATC CTG TCC ATC GAA AAC CAC TGC AGT GTC ATC CAG CAG AAG AAA ATG GCC CAG TAT 1290 450 CTG ACT GAC ATC CTT GGG GAC AAG CTG GAC CTG TCA TCA GTG AGC AGT GAA GAT GCC ACC 1350 K ACA CTC CCC TCT CCA CAG ATG CTC AAG GGC AAG ATC CTC GTG AAG GGG AAG AAG CTC CCA 490 GCC AAC ATC AGC GAG GAT GCG GAG GAA GGC GAG GTG TCT GAT GAG GAC AGT GCT GAT GAG 1470 N 510 ATT GAC GAT GAC TGC AAG CTC CTC AAT GGG GAT GCA TCC ACC AAT CGA AAG CGT GTA GAA 1530 530 AAC ACT GCT AAG AGG AAA CTG GAT TCC CTC ATC AAA GAG TCG AAG ATT CGG GAC TGT GAG 1590 550 GAC CCC AAC AAC TTC TCC GTC TCC ACA CTG TCC CCA TCT GGA AAG CTC GGA CGC AAG AGC 1650 570 Ε D R N AAG GCT GAA GAG GAC GTG GAG TCT GGG GAG GAT GCC GGG GCC AGC AGA CGC AAT GGC CGC 1710 590 CTC GTC GTG GGA AGC TTC TCC AGG CGC AAG AAG AAG GGC AGC AAG CTG AAG AAG GCG GCC 1770 610 Ε G 0 AGC GTG GAG GAG GGA GAT GAG GGT CAG GAC TCC CCG GGA GGC CAG AGC CGA GGG GCG ACC 1830 630 M ĸ CGG CAG AAG AAG ACC ATG AAG CTG TCC CGG GCC CTC TCT GAC CTG GTG AAG TAC ACC AAG 1890 650 TCC GTG GCC ACC CAC GAC ATA GAG ATG GAG GCG GCG TCC AGC TGG CAG GTG TCC TCC TTC 1950 670 S E T K A H Q I L Q Q K P A Q Y L R F N AGC GAG ACC AAG GCC CAC CAG ATT CTG CAG CAG AAG CCG GCG CAG TAC CTA CGC TTC AAC 2010 690 CAG CAG CAG CTC TCC CGC ATC TAC CCC TCC TCC TAC CGT GTG GAC TCC AGC AAC TAC AAC 2070 710 M L CCG CAG CCC TTC TGG AAC GCC GGC TGC CAA ATG GTT GCC CTG AAC TAC CAG TCA GAG GGG 2130 730 CGG ATG CTG CAG CTG AAC CGA GCC AAG TTC AGC GCC AAC GGT GGC TGC GGC TAC GTA CTC 2190 750 N AAG CCT GGG TGC ATG TGC CAG GGC GTG TTC AAC CCC AAC TCG GAG GAC CCC CTG CCC GGG 2250 770 R CAG CTC AAG AAG CAG CTG GTG CTC CGG ATC ATC AGT GGC CAG CAG CTT CCC AAG CCG CGC 2310 GAC TCC ATG CTG GGG GAC CGT GGG GAG ATC ATC GAC CCC TTT GTG GAG GTG GAG ATC ATT 2370 810 GGG CTC CCT GTG GAC TGC AGC AGG GAG CAG ACC CGC GTG GTG GAC GAC AAC GGG TTC AAC 2430 830 H M M CCC ACC TGG GAG GAG ACC CTG GTT TTC ATG GTG CAC ATG CCG GAG ATC GCG CTG GTC CGC 2490 850 R D F TTC CTC GTC TGG GAC CAC GAT CCC ATC GGG CGT GAC TTC ATT GGC CAG AGG ACG CTG GCC 2550 Н TTC AGC AGC ATG ATG CCA GGC TAC AGA CAC GTG TAC CTA GAA GGG ATG GAA GAG GCC TCC 2610

USES THEREOF

Inventors: Rachel Meyers et al. Application No.: Not yet assigned Docket No.: 381552004800

Sheet 3 of 8

F V H V A V S D I S G K V K Q 290 ATC TTC GTG CAT GTG GCT GTC AGT GAC ATC AGC GGT AAG GTC AAG CAG GCT CTG GGC CTA 2670 910 AAA GGC CTC TTC CTC CGA GGC CCA AAG CCC GGC TCG CTG GAC AGT CAT GCT GCT GGG CGG 2730 930 R R R Ι L CCC CCG GCC CGG CCC TCC GTT AGC CAG CGG ATC CTG CGG CGC ACG GCC AGC GCC CCG ACC R R G F Ρ E v AAG AGC CAG AAG CCG GGC CGC AGG GGC TTC CCG GAG CTG GTC CTG GGT ACA CGG GAC ACA 2850 970 v G v D D GGC TCC AAG GGG GTG GCA GAC GAT GTG GTG CCC CCC GGG CCC GGA CCT GCT CCG GAA GCC 2910 990 K CCA GCC CAG GAG GGG CCC GGC AGC CCC CGA GGT AAG GCG CCA GCT GCG GTG GCA 2970 1010 G P R L D R GAG AAG AGC CCT GTG CGA GTG CGG CCC CCG CGT GTC CTG GAC GGC CCC GGG CCT GCT GGG C С v V G G M K ATG GCC GCC ACA TGC ATG AAG TGT GTG GTG GGA TCC TGC GCC GGC GTG AAC ACC GGG GGC CTG CAG AGG GAG CGG CCA CCC AGC CCG GGG CCT GCA AGC AGG CAG GCC ATT CGC CAG 3150 1070 D CAG CCC CGG GCC CGG GCT GAC TCA CTG GGG GCC CCC TGC TGT GGC CTG GAC CCT CAC GCT 3210 1090 G P G Α W Ε K ATC CCG GGG AGA AGC AGA GAG GCC CCC AAG GGT CCT GGG GCC TGG AGG CAG GGT CCA GGC S Ρ S D S M S GGT AGC GGC TCC ATG TCC TCG GAC TCC AGC AGC CCA GAC AGC CCG GGC ATC CCC GAA AGG 1130 С G R TCC CCC CGC TGG CCT GAG GGT GCC TGC AGG CAA CCG GGG GCC CTG CAG GGA GAG ATG AGT S М R S ĸ GCC TTG TTT GCT CAA AAG CTG GAG GAG ATC AGG AGT AAA TCC CCC ATG TTC TCC GCC GGT 1170 P Н AAG CCC CTC TTG CCC TGC GTG GTC CTC CCG CAC GCC CCT GGC ATG GCT GGG CCT GGG TCA v S R CCT GCT GCT TCT GCG TGG ACG GTG TCG CCT CGT GTG CTC GTG CTC GTG GCT CTG TAT P W H C L R G T L L P W L A C G P \* CCG TGG CAC TGT CTC CGT GGC ACT CTG CTC CCT TGG CTT GCC TGT GGC CCA TAG  $\leftarrow$  SEQ ID NO:3  $\uparrow$ 1208 3624 GCTGCTCTTGCTGAGGGTCTGGGGCCGGGACTGTGGCCTGACATGCTGGGCCCCTCCGGCTGGGCGCTTCCCCAAACTC ACCTCCTGGGCGGCTGGCGACCTGCATGGCCCCTGATGCCTTTCCTGGGACTGGGGGCCATGTACCATCCCATTCCCAC GACAGGTAACGGGGCCCAGCCCCG

Title: 32544, A NOVEL HUMAN PHOSPHOLIPASE C AND USES THEREOF TO THE TO THE TOTAL THE T

Application No.: Not yet assigned Docket No.: 381552004800 Inventors: Rachel Meyers et al.

Sheet 4 of 8

1 41 01 121 161 201 241 281 321 361 401 441 481 551 561 691 641 681 721 761 801 841 881 921 961 1001 1041 1041 1121 1161 1201 The property of the formation of the for FH\_updste 52321

Fig. 2

USES THEREOF

Inventors: Rachel Meyers et al. Application No.: Not yet assigned Docket No.: 381552004800

### Sheet 5 of 8

# Fig. 3

\*->elkeaFkefDkDgDGkIsfeEfkaalkkl<-\* **SEQ ID NO:5**lk+ F+e+Dk+gDG +s+ E +++1+kl
32544 169 WLKQTFDEADKNGDGSLSIGEVLQLLHKL 197

### Fig. 4a

\*->elkeaFkefDk.DgDGkIsfeEfkaalkkl<-\* **SEQ ID NO:6**++k++F+e+D++D+ G++ feEf+a+ k++
32544 205 RVKQMFREADTdDHQGTLGFEEFCAFYKMM 234

#### Fig. 4b

\*->dmsiPLsHYfisSshntYLtgkQlwGkssvesYrqqLdaGcRcvELD SEQ ID NO:7 dm +PLsHYfi+SshntYL g+Ql ++s v +Y +L+aGcRcvE D 32544 323 DMTQPLSHYFITSSHNTYLVGDQLMSQSRVDMYAWVLQAGCRCVEVD 369 cwdGkpddepiIyHGhtltleiklkdVleaIkdfafkPtSpyPvIlSlen cwdG pd+epi+ HG+tlt++i++kdV+e+I ++af 32544 370 CWDG-PDGEPIVHHGYTLTSKILFKDVIETINKYAFI-KNEYPVILSIEN 417  ${\tt HcnsddqQrkmakyfkeiFgdmLltkPtldslttepglpLPslkdlrgKI}$ HC++ qQ+kma+y+ +i+qd+L+ + +t+ LPs+ +1+qKI 32544 418 HCSVI-QQKKMAQYLTDILGDKLDLSSVSSEDATT----LPSPQMLKGKI 462 LLknkk<-\* L+k+kk 32544 463 LVKGKK 468

**USES THEREOF** 

Inventors: Rachel Meyers et al. Application No.: Not yet assigned Docket No.: 381552004800

### Sheet 6 of 8

\*->ElsnLvnYiqsikFrsFelsGeekntsyeisSFsErkvkakkllkes SEQ ID NO:8 ls+Lv Y +s+ ++ e s ++sSFsE+ ka + l++ 32544 621 ALSDLVKYTKSV--ATHDIE-MEAASSWQVSSFSET--KAHQILQQK 662  ${\tt pvefVkyNkrqLsRvYPkGtRvDSSNfmPqvfWnaGCQmVALNfQTsDlp}$ p + ++N+ qLsR+YP RvDSSN++Pq+fWnaGCQmVALN+Q+ + 32544 663 PAQYLRFNQQQLSRIYPSSYRVDSSNYNPQPFWNAGCQMVALNYQSEGRM 712 mqiNdGmFeyNggqPdGsfksGYlLKPeflR<-\* +q+N ++F++Ngg +GY+LKP ++ 32544 713 LQLNRAKFSANGG-----CGYVLKPGCMC 736

### Fig. 6

# Fig. 7

Query:	883	KVKQALGLKGLFLRGPKPGSLDSHAAGRPPARPSVSQRILRRTASAPTKSQKPGRRGFPE +VKQALGLKGLFLRGPKPGSLDSHAAGRPPARPSVSQRILRRTASAPTKSQKPGRRGFPE	942			
Sbjct:	101	QVKQALGLKGLFLRGPKPGSLDSHAAGRPPARPSVSQRILRRTASAPTKSQKPGRRGFPE	160	SEQ	ID 1	NO:10
Query:	943	LVLGTRDTGSKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	1002			
Sbjct:	161	LVLGTRDTGSKGVADDVVPPGPGPAPEAPAQEGPGSGSPRGKAPAAVAEKSPVRVRPPRV	220			
Query:	1003	LDGPGPAGMAATCMKCVVGSCAGVNTGGLQRERPPSPGPASXXXXXXXXXXXXXXDSLGAP LDGPGPAGMAATCMKCVVGSCAGVNTGGLQRERPPSPGPAS DSLGAP	1062			
Sbjct:	221	LDGPGPAGMAATCMKCVVGSCAGVNTGGLQRERPPSPGPASRQAAIRQQPRARADSLGAP	280			
Query:	1063	CCGLDPHAIPGRSREAPKGPGAWRQXXXXXXXXXXXXXXXXXXIPERSPRWPEGACRQP CCGLDPHAIPGRSREAPKGPGAWRQ IPERSPRWPEGACROP	1122			
Sbjct:	281	CCGLDPHAIPGRSREAPKGPGAWRQGPGGSGSMSSDSSSPDSPGIPERSPRWPEGACRQP	340			
Query:	1123	GALQGEMSALFAQKLEEIRSKSPMFSAGKPLLPCVVLPHXXXXXXXXXXXXXXXXXVTVSPR GALQGEMSALFAQKLEEIRSKSPMFSAGKPLLPCVVLPH WTVSPR	1182			
Sbjct:	341	GALQGEMSALFAQKLEEIRSKSPMFSAGKPLLPCVVLPH WTVSPR GALQGEMSALFAQKLEEIRSKSPMFSAGKPLLPCVVLPHAPGMAGPGSPAAASAWTVSPR	400			
Query:	1183	VLVLVALYPWHCLRGTLLPWLACGP 1207 VLVLVALYPWHCLRGTLLPWLACGP				
Sbjct:	401	VLVLVALYPWHCLRGTLLPWLACGP 425				

**USES THEREOF** 

Inventors: Rachel Meyers et al. Application No.: Not yet assigned Docket No.: 381552004800

#### Sheet 7 of 8

Query: 307 SPAGDIFNPEHHHVHQDMTQPLSHYFITSSHNTYLVGDQLMS-QSRVDMYAWVLQAGCRC 365

SP ++F+PEH VHQDM QPLSHYFI SSHNTYL G+QL S +S V+MY L GCRC

Sbjct: 2 SPDCNVFDPEHKQVHQDMNQPLSHYFINSSHNTYLTGNQLSSGESSVEMYRQALLKGCRC 61 SEQ ID NO:11

Query: 366 VEVDCWDGPDG--EPIVHHGYTLTSKILFKDVIETINKYAFIKNEYPVILSIENHCSVI- 422

+E+DCWDG DG EPI+ HG+T+T++I FKD +E I ++AF+ +EYPVILS+ENHC

Sbjct: 62 IELDCWDGKDGDPEPIITHGHTMTTEISFKDCLEAIKEHAFVTSEYPVILSLENHCDSTP 121

Query: 423 -QQKKMAQYLTDILGDKL---DLSSVSSEDATTLPSPQ 456

QQ KMA+Y ++ GD L L E LPSP+

Sbjct: 122 QQQAKMAEYCKEVFGDMLFTEPLEESPLEPGKELPSPE 159

#### Fig. 9a

Query: 514 KRKLDSLIKESKIRDCEDPNNFSVSTLSPSGKLGRKSKAEEDVESGEDA 562

KRK+ LIK K+++ + S K ++++EE+ E G DA

Sbjct: 162 KRKI--LIKNKKLKEHSEEKE-----SEEKKTDEETESEEEDEMGSDA 202 SEQ ID NO:12

# Fig. 9b

Query: 742 PNSEDPLPGQLKKQLVLR 759

P E P P + LK+++++

Sbjct: 151 PGKELPSPEELKRKILIK 168 SEQ ID NO:13

### Fig. 9c

Query: 41 CMGAMQEGMQMVKLRGGSKGLVRFYYLDEHRSCIRWRP---SRKN-EKAKISIDSIQEVS 96

C+ MQ+G ++ K+R S R++ LD+ + W P S+K+ EK K I I+E+

Sbjct: 14 CLQFMQKGSELKKVRSNSWKYNRYFTLDDDMQTLWWEPHWFSKKDSEKPKFDISDIKEIR 73 seq id no:14

Query: 97 EGRQSEVFQRYPDGSF---DP-NCCFSIYHGSH--RESLDLVSTSSEVARTWVTGLRYLM 150
G+ +E F R F +P +CCFSI G + ESLDLV+ S++VA WV+GLRYL+

Sbjct: 74 MGKNTETF-RNNGKEFQIQEPEDCCFSIIFGENYFHESLDLVANSADVANIWVSGLRYLV 132

Query: 151 AGISDEDSLARRQRTRDQWLKQTFDEADKNGDGSLSIGEVLQLLHKLNVNLPRQRVKQMF 210

+ L Q DQWL++ F +AD+N D +S E LL +NV + + +F

Sbjct: 133 DYA--KHMLDNYQEQLDQWLREWFQQADRNKDSRMSFREAQNLLKLMNVQMDEEYAFSIF 190

Query: 211 READ 214

RE D

Sbjct: 191 RECD 194

**USES THEREOF** 

Inventors: Rachel Meyers et al. Application No.: Not yet assigned Docket No.: 381552004800

# Sheet 8 of 8

Query: 174 FDEADKNGDGSLSIGEVLQLLHKLNVNLPRQRVKQMFREAD--TDDHQGT-LGFEEFCAF 230

FDE D +G+G L + + LN L ++ F+E + + + T + E F

Sbjct: 2 FDEFDTDGNGHLDEQTAFKCIKHLNPRLKHHKITNKFKEITIKSKEKERTKITKEHFVDL 61 SEQ ID NO:15

Query: 231 YKMMSTRRDLYLLMLTYSNHKDHLDAASLQRFLQVEQKMAGVTLESCQDIIEQFEPCPEN 290

YK + TR ++Y LM+ YS +KD+LD L FL+ EQ M VT ++C DIIEQ+EPC E

Sbjct: 62 YKELGTRPEVYFLMVQYSKNKDYLDCQDLMLFLETEQGMVHVTEDNCLDIIEQYEPCSEG 121

Query: 291 KSKGLLGIDGFTNY 304

+ G + IDGFT+Y

Sbjct: 122 RENGWMTIDGFTSY 135

# Fig. 11

Query: 851 FSSMMPGYRHVYLEGMEEASIFVHVAVSDISGKVKQALGLKGLFLRGPKPGSLDSHAAGR 910

FSS++PGYRHVYLEG+ EASIFVH+ +++I GK +Q GLKGLF + P+ S ++++

Sbjct: 2 FSSLVPGYRHVYLEGLTEASIFVHITINEIYGKNRQLQGLKGLFNKNPRHSSSENNS--H 59 SEQ ID NO:16

Query: 911 PPARPSVSQRILRRTASAPTKSQKPGRRGFPELV 944

+ S+ RILRRTASAP K +K + GF E+V

Sbjct: 60 YVRKRSIGDRILRRTASAPAKGRKKSKMGFQEMV 93

Fig. 12